Test Report

Product Name	WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Model No.	MS-3871
FCC ID.	I4L-MS3871

Applicant	MICRO-STAR INT'L Co., LTD.
Address	No. 69, Li-De St., Jung-He City, Taipei Hsien, Taiwan, R.O.C.

Date of Receipt	March 04, 2010
Issued Date	April 27, 2010
Report No.	103090R-RFUSP29V01
Report Version	V1.0

Test Report Certification

Issued Date: April 27, 2010
Report No.: 103090R-RFUSP29V01

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Applicant	MICRO-STAR INT'L Co., LTD.
Address	No. 69, Li-De St., Jung-He City, Taipei Hsien, Taiwan, R.O.C.
Manufacturer	MICRO-STAR INT'L Co., LTD.
Model No.	MS-3871
FCC ID.	I4L-MS3871
EUT Rated Voltage	DC 3.3V
EUT Test Voltage	AC 120V/ 60Hz
Trade Name	msi
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2009 ANSI C63.4: 2003
Test Result	Complied

The Test Results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Documented By : Rita Huang
(Senior Adm. Specialist / Rita Huang)

Tested By : Molin huang
(Engineer / Molin Huang)

Approved By :
(Manager / Vincent Lin)

NVLAP Lab Code: 200533-0

Testing Laboratory
0914

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Trade Name	msi
Model No.	MS-3871
FCC ID.	I4L-MS3871
Frequency Range	2402 – 2480MHz
Channel Number	79
Type of Modulation	FHSS: GFSK(1Mbps) / π /4DQPSK(2Mbps) / 8DPSK(3Mbps)
Antenna Type	Printed on PCB
Channel Control	Auto
Antenna Gain	Refer to the table “Antenna List”

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	MSI	N/A	Printed on PCB	-3.38dBi for 2.5 GHz

Note: The antenna of EUT is conform to FCC 15.203

Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00:	2402 MHz	Channel 20:	2422 MHz	Channel 40:	2442 MHz	Channel 60:	2462 MHz
Channel 01:	2403 MHz	Channel 21:	2423 MHz	Channel 41:	2443 MHz	Channel 61:	2463 MHz
Channel 02:	2404 MHz	Channel 22:	2424 MHz	Channel 42:	2444 MHz	Channel 62:	2464 MHz
Channel 03:	2405 MHz	Channel 23:	2425 MHz	Channel 43:	2445 MHz	Channel 63:	2465 MHz
Channel 04:	2406 MHz	Channel 24:	2426 MHz	Channel 44:	2446 MHz	Channel 64:	2466 MHz
Channel 05:	2407 MHz	Channel 25:	2427 MHz	Channel 45:	2447 MHz	Channel 65:	2467 MHz
Channel 06:	2408 MHz	Channel 26:	2428 MHz	Channel 46:	2448 MHz	Channel 66:	2468 MHz
Channel 07:	2409 MHz	Channel 27:	2429 MHz	Channel 47:	2449 MHz	Channel 67:	2469 MHz
Channel 08:	2410 MHz	Channel 28:	2430 MHz	Channel 48:	2450 MHz	Channel 68:	2470 MHz
Channel 09:	2411 MHz	Channel 29:	2431 MHz	Channel 49:	2451 MHz	Channel 69:	2471 MHz
Channel 10:	2412 MHz	Channel 30:	2432 MHz	Channel 50:	2452 MHz	Channel 70:	2472 MHz
Channel 11:	2413 MHz	Channel 31:	2433 MHz	Channel 51:	2453 MHz	Channel 71:	2473 MHz
Channel 12:	2414 MHz	Channel 32:	2434 MHz	Channel 52:	2454 MHz	Channel 72:	2474 MHz
Channel 13:	2415 MHz	Channel 33:	2435 MHz	Channel 53:	2455 MHz	Channel 73:	2475 MHz
Channel 14:	2416 MHz	Channel 34:	2436 MHz	Channel 54:	2456 MHz	Channel 74:	2476 MHz
Channel 15:	2417 MHz	Channel 35:	2437 MHz	Channel 55:	2457 MHz	Channel 75:	2477 MHz
Channel 16:	2418 MHz	Channel 36:	2438 MHz	Channel 56:	2458 MHz	Channel 76:	2478 MHz
Channel 17:	2419 MHz	Channel 37:	2439 MHz	Channel 57:	2459 MHz	Channel 77:	2479 MHz
Channel 18:	2420 MHz	Channel 38:	2440 MHz	Channel 58:	2460 MHz	Channel 78:	2480 MHz
Channel 19:	2421 MHz	Channel 39:	2441 MHz	Channel 59:	2461 MHz		

Note:

1. This device is a WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module with a built-in 2.4GHz Bluetooth V2.1+EDR transceiver
2. These tests were conducted on a sample for the purpose of demonstrating compliance of Bluetooth transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
5. This Module has different conditions of aluminum foil when sell to OEM.
6. The Device is combo card have WLAN and Bluetooth function. The WLAN antenna distance form Bluetooth antenna is 6cm.

1.2. Operational Description

The EUT is a WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module with built-in 2.4GHz Bluetooth V2.1+EDR transceiver. The number of the channels is 79 in 2402-2480MHz. The device adapts the frequency hopping spread spectrum modulation. The antenna is Printed on PCB and provides diversity function to improve the receiving function.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals

Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. The transmitter is presented with a continuous data stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its 79 channels and over the minimum number of hopping channels (75 channels).

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted. The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

Test Mode	Mode 1: Transmit - 1Mbps (GFSK) Mode 2: Transmit - 3Mbps (8DPSK)
Note: The Module has different conditions of aluminum foil when sell to OEM. In test item of radiation emission is evaluate three condition of aluminum foil. Three condition are list in below: Shielding A: EUT without aluminum foil. Shielding B: EUT with middle size of aluminum foil. Shielding C: EUT with larger size of aluminum foil. Other test item are use shielding A.	

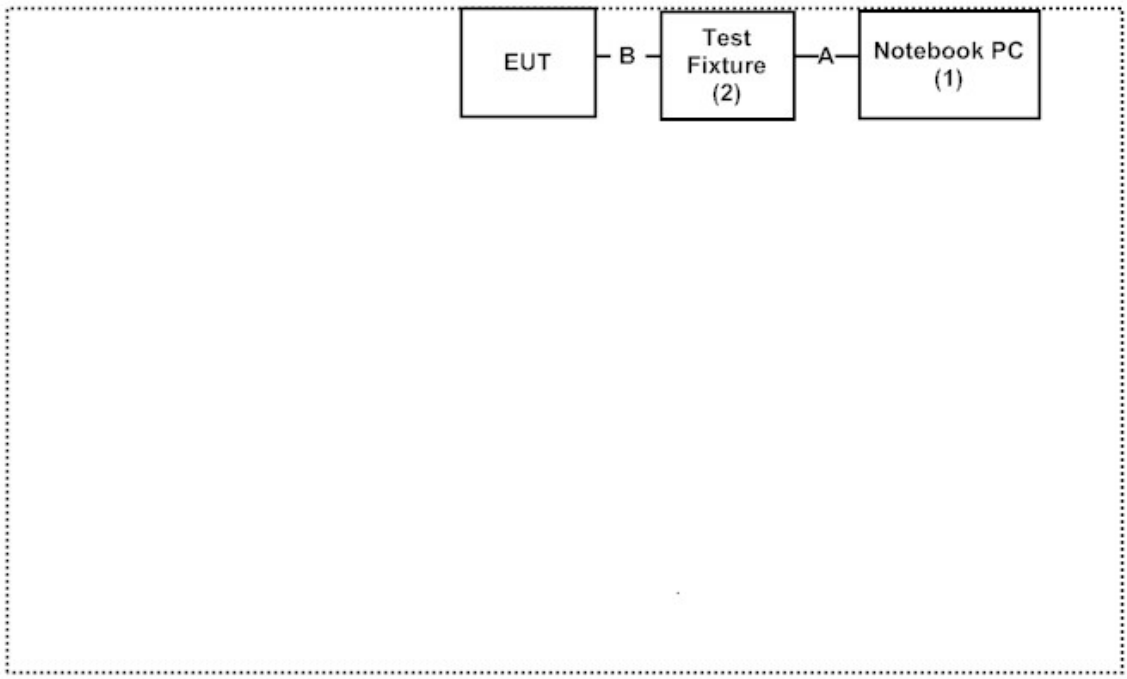
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	DELL	PPT	N/A	DoC	Non-Shielded, 0.8m
2	Test Fixture	N/A	N/A	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A	USB Cable	Non-Shielded, 1.5m
B	Signal Cable	Non-Shielded, 1.0m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

(1) Setup the EUT as shown in Section 1.4

(2) Execute software on the EUT.

(3) Configure the test mode, the test channel, and the data rate.

(4) Press “OK” to start the continuous transmission.

(5) Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	30-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : http://tw.quietek.com/tw/emc/accreditations/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 92195

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

Site Name: Quietek Corporation
Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

Testing Laboratory
0914

2. Conducted Emission

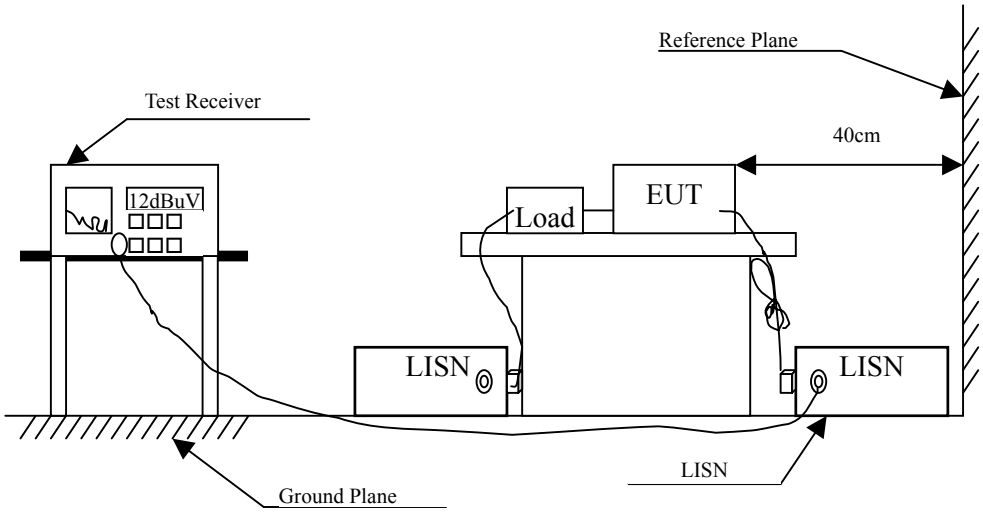
2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/014	Feb., 2010	
2	L.I.S.N.	R & S	ESH3-Z5/825562/002	Feb., 2010	EUT
3	L.I.S.N.	R & S	ENV4200/848411/010	Feb., 2010	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2/100410	July, 2009	
5	No.1 Shielded Room			N/A	

Note: All instruments are calibrated every one year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AV
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT and Peripherals are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

The EUT was setup to ANSI C63.4, 2003; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.181	9.724	40.630	50.354	-14.760	65.114
0.244	9.679	36.530	46.209	-17.105	63.314
0.302	9.650	27.960	37.610	-24.047	61.657
0.427	9.641	16.560	26.201	-31.885	58.086
3.400	9.690	20.380	30.070	-25.930	56.000
15.740	10.000	24.780	34.780	-25.220	60.000
Average					
0.181	9.724	32.730	42.454	-12.660	55.114
0.244	9.679	27.790	37.469	-15.845	53.314
0.302	9.650	22.410	32.060	-19.597	51.657
0.427	9.641	9.860	19.501	-28.585	48.086
3.400	9.690	11.130	20.820	-25.180	46.000
15.740	10.000	22.870	32.870	-17.130	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.181	9.732	40.670	50.402	-14.712	65.114
0.252	9.685	23.060	32.745	-30.341	63.086
0.302	9.660	28.160	37.820	-23.837	61.657
0.423	9.650	17.940	27.590	-30.610	58.200
3.701	9.700	25.460	35.160	-20.840	56.000
15.740	10.000	24.760	34.760	-25.240	60.000
Average					
0.181	9.732	32.510	42.242	-12.872	55.114
0.252	9.685	7.890	17.575	-35.511	53.086
0.302	9.660	22.190	31.850	-19.807	51.657
0.423	9.650	11.270	20.920	-27.280	48.200
3.701	9.700	16.170	25.870	-20.130	46.000
15.740	10.000	22.870	32.870	-17.130	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

3.1. Test Equipment

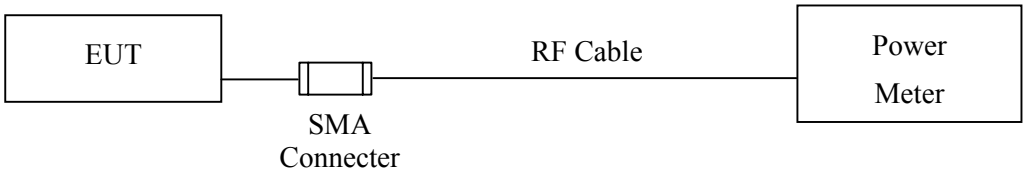
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2009
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2009

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

3.2. Test Setup



3.3. Limit

The maximum peak power shall be less 1Watt.

3.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Peak Power Output
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	1.22	1 Watt= 30 dBm	Pass
Channel 39	2441.00	1.35	1 Watt= 30 dBm	Pass
Channel 78	2480.00	1.52	1 Watt= 30 dBm	Pass

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Peak Power Output
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
Channel 00	2402.00	-0.31	1 Watt= 30 dBm	Pass
Channel 39	2441.00	-0.09	1 Watt= 30 dBm	Pass
Channel 78	2480.00	-0.12	1 Watt= 30 dBm	Pass

4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the radiated emission test:

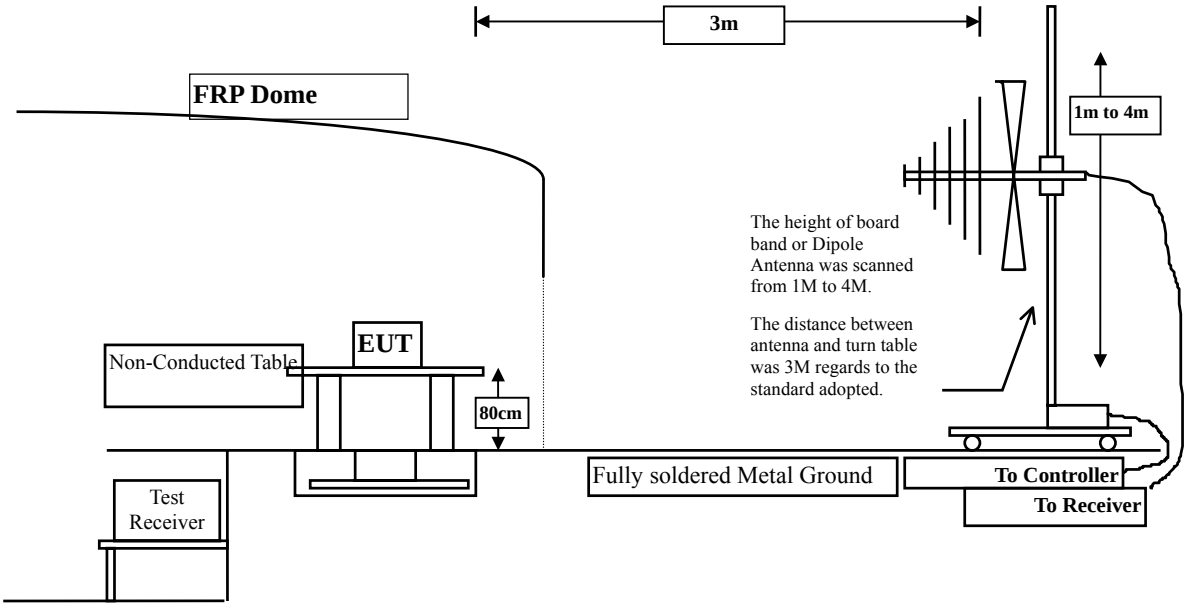
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2009
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2009
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2009
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2009
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2009
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2009
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2010
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated every one year.

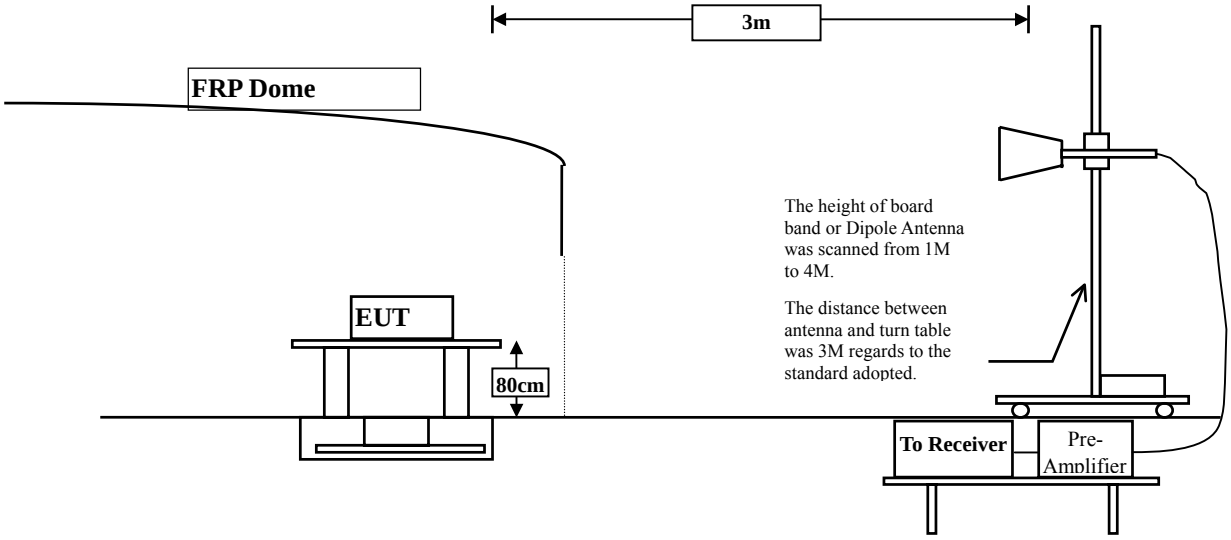
2. The test instruments marked by "X" are used to measure the final test results.

4.2. Test Setup

Below 1GHz



Above 1GHz



4.3. Limits

➢ **General Radiated Emission Limits**

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks: 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.
The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.
Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.
The measurement is divided into the Preliminary Measurement and the Final Measurement.
The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.
The worst radiated emission is measured on the Final Measurement.
The frequency range from 30MHz to 10th harminics is checked.

4.5. Uncertainty

± 3.9 dB above 1GHz
± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (X、Y、Z-Line) – Shielding A

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal Peak Detector:					
2402.000(x-axis)	31.573	61.240	92.814	92.814	0.000
2402.000(y-axis)	31.573	46.690	78.264	78.264	0.000
2402.000(z-axis)	31.573	53.190	84.764	84.764	0.000
Vertical Peak Detector:					
2402.000(x-axis)	30.917	57.510	88.427	88.427	0.000
2402.000(y-axis)	30.917	60.150	91.067	91.067	0.000
2402.000(z-axis)	30.917	51.670	82.587	82.587	0.000

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (X、Y、Z-Line) – Shielding B

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
2402.000(x-axis)	31.573	58.560	90.134	90.134	0.000
2402.000(y-axis)	31.573	51.620	83.194	83.194	0.000
2402.000(z-axis)	31.573	57.550	89.124	89.124	0.000
Vertical					
Peak Detector:					
2402.000(x-axis)	30.917	52.620	83.537	83.537	0.000
2402.000(y-axis)	30.917	57.250	88.167	88.167	0.000
2402.000(z-axis)	30.917	53.030	83.947	83.947	0.000

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (X、Y、Z-Line) – Shielding C

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
2402.000(x-axis)	31.573	58.450	90.024	90.024	0.000
2402.000(y-axis)	31.573	56.750	88.324	88.324	0.000
2402.000(z-axis)	31.573	56.870	88.444	88.444	0.000
Vertical					
Peak Detector:					
2402.000(x-axis)	30.917	52.920	83.837	83.837	0.000
2402.000(y-axis)	30.917	54.880	85.797	85.797	0.000
2402.000(z-axis)	30.917	60.480	91.397	91.397	0.000

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (X、Y、Z-Line) – Shielding A

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
2402.000(x-axis)	31.573	58.880	90.454	90.454	0.000
2402.000(y-axis)	31.573	48.700	80.274	80.274	0.000
2402.000(z-axis)	31.573	52.670	84.244	84.244	0.000
Vertical					
Peak Detector:					
2402.000(x-axis)	30.917	51.500	82.417	82.417	0.000
2402.000(y-axis)	30.917	55.560	86.477	86.477	0.000
2402.000(z-axis)	30.917	53.660	84.577	84.577	0.000

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (X、Y、Z-Line) – Shielding B

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
2402.000(x-axis)	31.573	56.410	87.984	87.984	0.000
2402.000(y-axis)	31.573	49.550	81.124	81.124	0.000
2402.000(z-axis)	31.573	55.810	87.384	87.384	0.000
Vertical					
Peak Detector:					
2402.000(x-axis)	30.917	50.290	81.207	81.207	0.000
2402.000(y-axis)	30.917	54.310	85.227	85.227	0.000
2402.000(z-axis)	30.917	51.360	82.277	82.277	0.000

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Fundamental Radiated Emission
Test Site : No.3OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (X、Y、Z-Line) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
2402.000(x-axis)	31.573	56.430	88.004	88.004	0.000
2402.000(y-axis)	31.573	53.220	84.794	84.794	0.000
2402.000(z-axis)	31.573	54.720	86.294	86.294	0.000
Vertical					
Peak Detector:					
2402.000(x-axis)	30.917	50.700	81.617	81.617	0.000
2402.000(y-axis)	30.917	55.660	86.577	86.577	0.000
2402.000(z-axis)	30.917	58.260	89.177	89.177	0.000

Note:

1. Measurement Level = Reading Level + Correct Factor.
2. Correct Factor = Antenna Factor + Cable Loss – PreAMP.
3. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1600.000	-3.258	50.580	47.322	-26.678	74.000
4804.000	3.327	52.830	56.157	-17.843	74.000
7206.000	10.136	35.860	45.996	-28.004	74.000
9608.000	13.706	35.180	48.886	-25.114	74.000
Average					
Detector:					
4804.000	3.327	35.200	38.527	-15.473	54.000
Vertical					
Peak Detector:					
1600.000	-1.678	51.200	49.521	-24.479	74.000
4804.000	6.638	53.120	59.757	-14.243	74.000
7206.000	11.005	35.770	46.775	-27.225	74.000
9608.000	14.103	35.190	49.293	-24.707	74.000
Average					
Detector:					
4804.000	6.638	37.200	43.837	-10.163	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1626.000	-3.267	52.320	49.053	-24.947	74.000
4882.000	3.001	53.980	56.981	-17.019	74.000
7323.000	11.846	35.360	47.207	-26.793	74.000
9764.000	12.563	36.280	48.843	-25.157	74.000
Average					
Detector:					
4882.000	3.001	36.220	39.221	-14.779	54.000
Vertical					
Peak Detector:					
1626.000	-1.652	48.960	47.309	-26.691	74.000
4882.000	5.713	55.080	60.794	-13.206	74.000
7323.000	12.727	34.520	47.248	-26.752	74.000
9764.000	13.028	35.690	48.718	-25.282	74.000
Average					
Detector:					
4882.000	5.713	39.980	45.694	-8.306	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1652.000	-3.283	50.110	46.827	-27.173	74.000
4960.000	2.760	58.080	60.840	-13.160	74.000
7440.000	12.567	34.890	47.456	-26.544	74.000
9920.000	13.456	34.854	48.310	-25.690	74.000
Average					
Detector:					
4960.000	2.760	37.560	40.320	-13.680	54.000
Vertical					
Peak Detector:					
1652.000	-1.593	48.950	47.357	-26.643	74.000
4960.000	5.557	54.750	60.307	-13.693	74.000
7440.000	13.426	34.420	47.845	-26.155	74.000
9920.000	13.958	35.123	49.081	-24.919	74.000
Average					
Detector:					
4960.000	5.557	37.660	43.217	-10.783	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1600.000	-3.258	51.500	48.242	-25.758	74.000
4804.000	3.327	59.100	62.427	-11.573	74.000
7206.000	10.136	36.170	46.306	-27.694	74.000
9608.000	13.706	35.340	49.046	-24.954	74.000
Average					
Detector:					
4804.000	3.327	42.490	45.817	-8.183	54.000
Vertical					
Peak Detector:					
1600.000	-1.678	45.890	44.211	-29.789	74.000
4804.000	6.638	50.520	57.157	-16.843	74.000
7206.000	11.005	34.820	45.825	-28.175	74.000
9608.000	14.103	34.790	48.893	-25.107	74.000
Average					
Detector:					
4804.000	6.638	39.050	45.687	-8.313	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1628.000	-3.269	43.280	40.012	-33.988	74.000
4882.000	3.001	54.420	57.421	-16.579	74.000
7323.000	11.846	34.747	46.594	-27.406	74.000
9764.000	12.563	34.820	47.383	-26.617	74.000
Average					
Detector:					
4882.000	3.001	41.650	44.651	-9.349	54.000
Vertical					
Peak Detector:					
1628.000	-1.648	39.580	37.933	-36.067	74.000
4882.000	5.713	52.240	57.954	-16.046	74.000
7323.000	12.727	34.220	46.948	-27.052	74.000
9764.000	13.028	35.220	48.248	-25.752	74.000
Average					
Detector:					
4882.000	5.713	40.850	46.564	-7.436	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1654.000	-3.283	47.480	44.196	-29.804	74.000
4960.000	2.760	52.150	54.910	-19.090	74.000
7440.000	13.426	36.110	49.536	-24.464	74.000
9920.000	13.958	35.290	49.248	-24.752	74.000
Average					
Detector:					
4960.000	2.760	39.680	42.440	-11.560	54.000
Vertical					
Peak Detector:					
1654.000	-1.588	47.740	46.151	-27.849	74.000
4960.000	5.557	48.550	54.107	-19.893	74.000
7440.000	13.426	36.280	49.705	-24.295	74.000
9920.000	13.958	35.190	49.148	-24.852	74.000
Average					
Detector:					
4960.000	5.557	37.190	42.747	-11.253	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2402MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1602.000	-3.258	49.350	46.091	-27.909	74.000
4804.000	3.327	44.250	47.577	-26.423	74.000
7206.000	10.136	36.380	46.516	-27.484	74.000
9608.000	13.706	35.290	48.996	-25.004	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1602.000	-1.679	46.380	44.700	-29.300	74.000
4804.000	6.638	39.680	46.317	-27.683	74.000
7206.000	11.005	35.050	46.055	-27.945	74.000
9608.000	14.103	36.280	50.383	-23.617	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2441MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1628.000	-3.269	48.980	45.712	-28.288	74.000
4882.000	3.001	49.670	52.671	-21.329	74.000
7323.000	11.846	34.620	46.467	-27.533	74.000
9764.000	12.563	35.420	47.983	-26.017	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1628.000	-1.648	49.190	47.543	-26.457	74.000
4882.000	5.713	45.750	51.464	-22.536	74.000
7323.000	12.727	37.580	50.308	-23.692	74.000
9764.000	13.028	38.750	51.778	-22.222	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)(2480MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1654.000	-3.283	50.680	47.396	-26.604	74.000
4960.000	2.760	39.850	42.610	-31.390	74.000
7440.000	12.567	34.980	47.546	-26.454	74.000
9920.000	13.456	34.950	48.406	-25.594	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
1654.000	-1.588	46.950	45.361	-28.639	74.000
4960.000	5.557	46.420	51.977	-22.023	74.000
7440.000	13.426	35.680	49.105	-24.895	74.000
9920.000	13.958	35.290	49.248	-24.752	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)(2402MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1600.000	-3.258	49.450	46.192	-27.808	74.000
4804.000	3.327	46.480	49.807	-24.193	74.000
7206.000	10.136	35.390	45.526	-28.474	74.000
9608.000	13.706	35.450	49.156	-24.844	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1600.000	-1.678	43.250	41.571	-32.429	74.000
4804.000	6.638	44.300	50.937	-23.063	74.000
7206.000	11.005	35.060	46.065	-27.935	74.000
9608.000	14.103	35.190	49.293	-24.707	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1626.000	-3.267	46.590	43.323	-30.677	74.000
4882.000	3.001	46.640	49.641	-24.359	74.000
7323.000	11.846	34.980	46.827	-27.173	74.000
9764.000	12.563	35.480	48.043	-25.957	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1626.000	-1.652	48.620	46.969	-27.031	74.000
4882.000	5.713	47.800	53.514	-20.486	74.000
7323.000	12.727	35.050	47.778	-26.222	74.000
9764.000	13.028	35.280	48.308	-25.692	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1652.000	-3.283	48.990	45.707	-28.293	74.000
4960.000	2.760	46.690	49.450	-24.550	74.000
7440.000	12.567	35.760	48.326	-25.674	74.000
9920.000	13.456	35.360	48.816	-25.184	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1652.000	-1.593	52.300	50.707	-23.293	74.000
4960.000	5.557	47.380	52.937	-21.063	74.000
7440.000	13.426	35.280	48.705	-25.295	74.000
9920.000	13.958	34.850	48.808	-25.192	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)(2402MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1602.000	-3.258	48.370	45.111	-28.889	74.000
4804.000	3.327	54.370	57.697	-16.303	74.000
7206.000	10.136	35.920	46.056	-27.944	74.000
9608.000	13.706	36.130	49.836	-24.164	74.000
Average					
Detector:					
4804.000	3.327	39.350	42.677	-11.323	54.000
Vertical					
Peak Detector:					
1602.000	-1.679	45.638	43.958	-30.042	74.000
4804.000	6.638	43.290	49.927	-24.073	74.000
7206.000	11.005	35.180	46.185	-27.815	74.000
9608.000	14.103	35.180	49.283	-24.717	74.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1628.000	-3.269	46.280	43.012	-30.988	74.000
4882.000	3.001	51.870	54.871	-19.129	74.000
7323.000	11.846	35.310	47.157	-26.843	74.000
9764.000	12.563	35.180	47.743	-26.257	74.000
Average					
Detector:					
4882.000	3.001	40.250	43.251	-10.749	54.000
Vertical					
Peak Detector:					
1628.000	-1.648	43.950	42.303	-31.697	74.000
4882.000	5.713	48.420	54.134	-19.866	74.000
7323.000	12.727	34.380	47.108	-26.892	74.000
9764.000	13.028	34.850	47.878	-26.122	74.000
Average					
Detector:					
4882.000	5.713	39.300	45.014	-8.986	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1654.000	-3.283	45.200	41.916	-32.084	74.000
4960.000	2.760	53.580	56.340	-17.660	74.000
7440.000	12.567	34.680	47.246	-26.754	74.000
9920.000	13.456	34.850	48.306	-25.694	74.000
Average					
Detector:					
4960.000	2.760	41.050	43.810	-10.190	54.000
Vertical					
Peak Detector:					
1654.000	-1.588	38.650	37.061	-36.939	74.000
4960.000	5.557	48.690	54.247	-19.753	74.000
7440.000	13.426	35.200	48.625	-25.375	74.000
9920.000	13.958	34.380	48.338	-25.662	74.000
Average					
Detector:					
4960.000	5.557	34.060	39.617	-14.383	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)(2402MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1602.000	-3.258	48.320	45.061	-28.939	74.000
4804.000	3.327	46.780	50.107	-23.893	74.000
7206.000	10.136	35.680	45.816	-28.184	74.000
9608.000	13.706	35.950	49.656	-24.344	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1602.000	-1.679	49.680	48.000	-26.000	74.000
4804.000	6.638	44.690	51.327	-22.673	74.000
7206.000	11.005	36.950	47.955	-26.045	74.000
9608.000	14.103	36.950	51.053	-22.947	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1628.000	-3.269	49.650	46.382	-27.618	74.000
4882.000	3.001	48.180	51.181	-22.819	74.000
7323.000	11.846	34.280	46.127	-27.873	74.000
9764.000	12.563	35.690	48.253	-25.747	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1628.000	-1.648	52.360	50.713	-23.287	74.000
4882.000	5.713	47.370	53.084	-20.916	74.000
7323.000	12.727	34.590	47.318	-26.682	74.000
9764.000	13.028	36.320	49.348	-24.652	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Harmonic Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2480MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
1654.000	-3.283	49.630	46.346	-27.654	74.000
4960.000	2.760	50.400	53.160	-20.840	74.000
7440.000	12.567	35.950	48.516	-25.484	74.000
9920.000	13.456	35.100	48.556	-25.444	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
1654.000	-1.588	52.300	50.711	-23.289	74.000
4960.000	5.557	47.400	52.957	-21.043	74.000
7440.000	13.426	35.280	48.705	-25.295	74.000
9920.000	13.958	36.900	50.858	-23.142	74.000
Average					
Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz。
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:10Hz; Span:20MHz。
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
462.620	1.172	25.786	26.958	-19.042	46.000
546.040	3.570	25.795	29.364	-16.636	46.000
604.240	4.770	25.140	29.910	-16.090	46.000
685.720	2.959	26.036	28.994	-17.006	46.000
831.220	6.121	26.645	32.766	-13.234	46.000
963.140	6.664	26.517	33.181	-20.819	54.000
Vertical					
507.240	-0.471	26.223	25.752	-20.248	46.000
685.720	2.319	26.036	28.354	-17.646	46.000
794.360	2.861	27.430	30.291	-15.709	46.000
846.740	2.601	26.628	29.229	-16.771	46.000
930.160	6.477	27.605	34.082	-11.918	46.000
965.080	7.932	26.954	34.886	-19.114	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) – Shielding A
(Without U12 Component)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
231.760	-8.338	43.589	35.251	-10.749	46.000
301.600	-3.375	40.050	36.676	-9.324	46.000
348.160	-2.268	39.314	37.046	-8.954	46.000
507.240	0.759	36.614	37.373	-8.627	46.000
747.800	3.296	32.433	35.729	-10.271	46.000
815.700	5.271	32.922	38.193	-7.807	46.000
Vertical					
276.380	-8.653	44.325	35.672	-10.328	46.000
344.280	-3.171	41.390	38.220	-7.780	46.000
532.460	-0.563	33.394	32.831	-13.169	46.000
664.380	-1.918	32.198	30.280	-15.720	46.000
749.740	2.510	31.156	33.666	-12.334	46.000
930.160	6.477	28.711	35.188	-10.812	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
258.920	-5.050	29.046	23.996	-22.004	46.000
361.740	-1.549	28.539	26.990	-19.010	46.000
472.320	0.637	26.683	27.320	-18.680	46.000
604.240	4.770	26.063	30.833	-15.167	46.000
749.740	3.320	31.617	34.937	-11.063	46.000
856.440	6.382	26.079	32.461	-13.539	46.000
Vertical					
379.200	-1.505	26.981	25.475	-20.525	46.000
458.740	-3.887	26.062	22.175	-23.825	46.000
538.280	0.020	26.914	26.934	-19.066	46.000
683.780	1.968	26.918	28.886	-17.114	46.000
749.740	2.510	31.617	34.127	-11.873	46.000
918.520	4.126	34.596	38.722	-7.278	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK) (2441MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
462.620	1.172	26.482	27.654	-18.346	46.000
602.300	4.287	28.805	33.092	-12.908	46.000
709.000	3.458	30.709	34.167	-11.833	46.000
765.260	4.253	31.736	35.989	-10.011	46.000
877.780	5.679	29.828	35.507	-10.493	46.000
941.800	6.435	25.772	32.207	-13.793	46.000
Vertical					
379.200	-1.505	26.563	25.057	-20.943	46.000
542.160	-0.269	28.339	28.070	-17.930	46.000
687.660	2.444	31.255	33.699	-12.301	46.000
767.200	2.575	32.116	34.691	-11.309	46.000
833.160	2.263	34.123	36.386	-9.614	46.000
901.060	3.331	35.188	38.519	-7.481	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz) – Shielding A

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
582.900	3.445	26.521	29.966	-16.034	46.000
691.540	3.681	26.786	30.467	-15.533	46.000
831.220	6.121	27.541	33.662	-12.338	46.000
868.080	5.401	26.258	31.659	-14.341	46.000
928.220	6.893	26.168	33.061	-12.939	46.000
988.360	7.110	26.171	33.281	-20.719	54.000
Vertical					
388.900	-3.064	28.250	25.186	-20.814	46.000
540.220	0.121	26.501	26.622	-19.378	46.000
691.540	2.421	26.786	29.207	-16.793	46.000
807.940	3.586	26.717	30.302	-15.698	46.000
930.160	6.477	28.173	34.650	-11.350	46.000
967.020	8.071	27.216	35.287	-18.713	54.000

Note:

1. The reading levels below 1GHz are quasi-peak values.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz) – Shielding A
(Without U12 Component)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
231.760	-8.338	43.353	35.015	-10.985	46.000
352.040	-2.403	36.055	33.652	-12.348	46.000
507.240	0.759	36.266	37.025	-8.975	46.000
666.320	2.031	31.214	33.246	-12.754	46.000
749.740	3.320	32.696	36.016	-9.984	46.000
934.040	6.612	27.540	34.152	-11.848	46.000
Vertical					
202.660	-7.739	40.354	32.615	-10.885	43.500
344.280	-3.171	37.621	34.451	-11.549	46.000
532.460	-0.563	31.448	30.885	-15.115	46.000
703.180	0.139	29.401	29.539	-16.461	46.000
747.800	2.166	30.853	33.019	-12.981	46.000
967.020	8.071	21.992	30.063	-23.937	54.000

Note:

1. The reading levels below 1GHz are quasi-peak values.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz) – Shielding B

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
462.620	1.172	26.496	27.668	-18.332	46.000
540.220	2.551	27.888	30.439	-15.561	46.000
617.820	2.823	27.381	30.204	-15.796	46.000
749.740	3.320	32.388	35.708	-10.292	46.000
829.280	6.344	31.998	38.342	-7.658	46.000
881.660	6.307	29.180	35.487	-10.513	46.000
Vertical					
381.140	-1.558	27.874	26.316	-19.684	46.000
540.220	0.121	27.888	28.009	-17.991	46.000
610.060	-1.579	26.454	24.875	-21.125	46.000
747.800	2.166	32.457	34.623	-11.377	46.000
887.480	2.544	31.074	33.618	-12.382	46.000
968.960	8.191	29.242	37.433	-16.567	54.000

Note:

1. The reading levels below 1GHz are quasi-peak values.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : General Radiated Emission
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK) (2441MHz) – Shielding C

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
464.560	0.526	27.640	28.166	-17.834	46.000
567.380	1.664	30.709	32.373	-13.627	46.000
710.940	3.596	31.896	35.492	-10.508	46.000
788.540	5.012	29.488	34.500	-11.500	46.000
879.720	6.115	31.031	37.146	-8.854	46.000
986.420	7.773	32.415	40.188	-13.812	54.000
Vertical					
379.200	-1.505	26.693	25.187	-20.813	46.000
542.160	-0.269	28.339	28.070	-17.930	46.000
687.660	2.444	31.255	33.699	-12.301	46.000
833.160	2.263	34.746	37.009	-8.991	46.000
899.120	3.063	35.258	38.321	-7.679	46.000
945.680	6.594	29.337	35.931	-10.069	46.000

Note:

1. The reading levels below 1GHz are quasi-peak values.
2. " " means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

5. RF Antenna Conducted Test

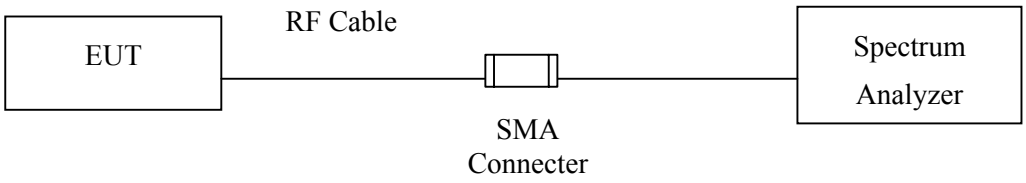
5.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2009
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2010

Note: 1. All equipments are calibrated every one year.

2. The test instruments Marked "X" are used to measure the final test results.

5.2. Test Setup



5.3. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

5.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

5.5. Uncertainty

± 150Hz

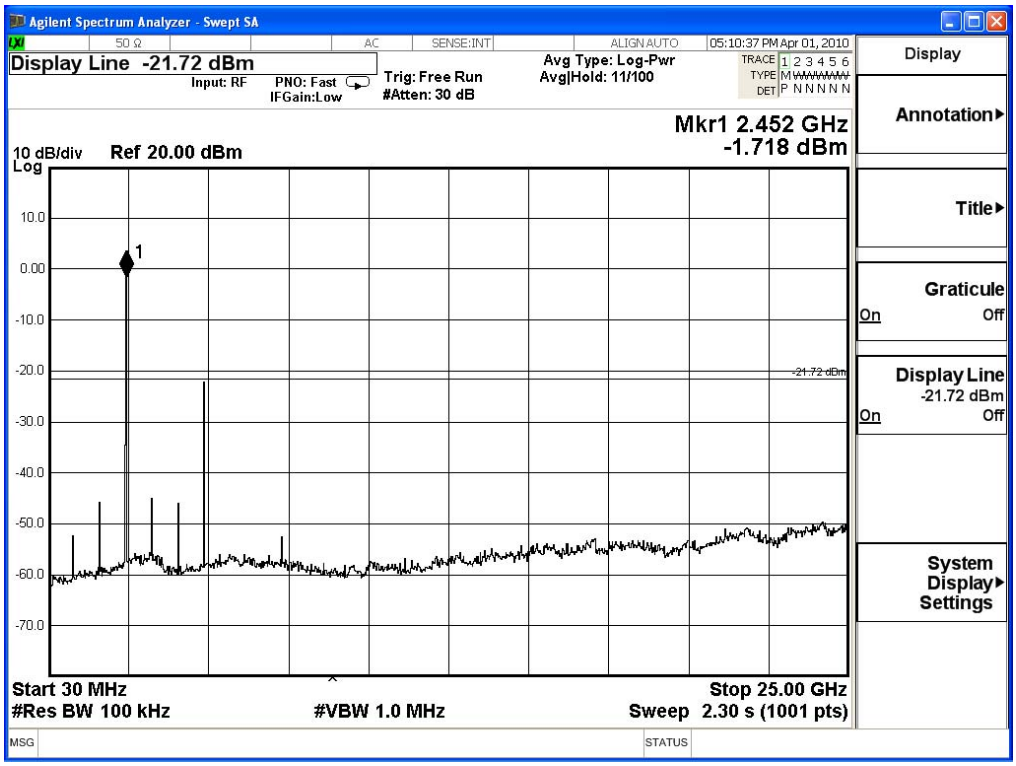
5.6. Test Result of RF Antenna Conducted Test

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : RF Antenna Conducted Test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Figure Channel 00: 30MHz-25GHz

Product	:	WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item	:	RF Antenna Conducted Test
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK)

Figure Channel 39: 30MHz-25GHz



Product	:	WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item	:	RF Antenna Conducted Test
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit - 1Mbps (GFSK)

Figure Channel 78: 30MHz-25GHz

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : RF Antenna Conducted Test
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Figure Channel 00: 30MHz-25GHz

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : RF Antenna Conducted Test
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Figure Channel 39: 30MHz-25GHz

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : RF Antenna Conducted Test
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Figure Channel 78: 30MHz-25GHz

6. Band Edge

6.1. Test Equipment

RF Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2009
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2010

RF Radiated Measurement:

The following test equipments are used during the band edge tests:

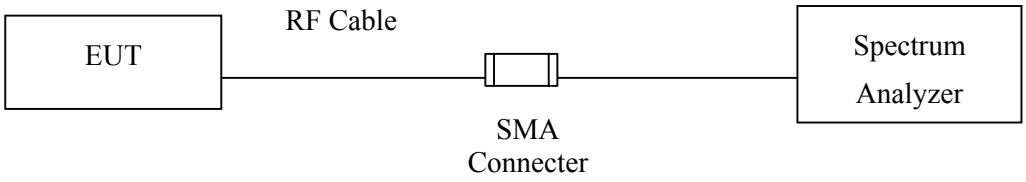
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2009
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2009
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2009
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2009
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2009
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2009
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2010
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

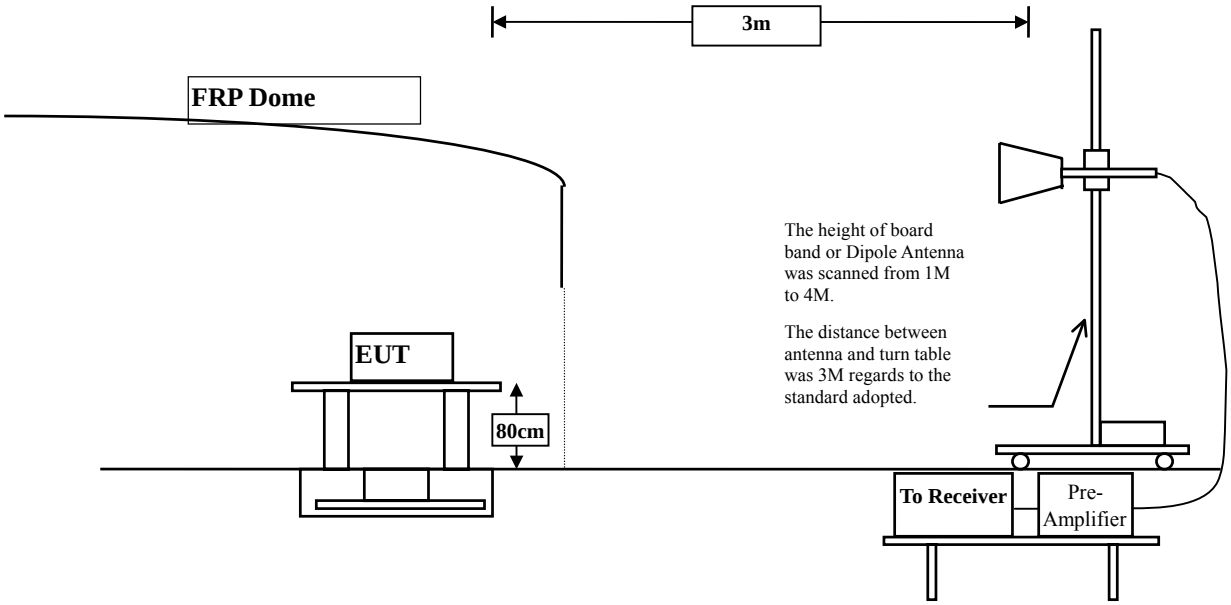
6.2. Test Setup

RF Conducted Measurement



RF Radiated Measurement:

Above 1GHz



6.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2003 on radiated measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.
The EUT was setup to ANSI C63.4, 2003; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

6.5. Uncertainty

± 3.9 dB above 1GHz
± 3.8 dB below 1GHz

6.6. Test Result of Band Edge

Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2402	31.573	61.065	92.638	Peak
Vertical	2402	30.917	58.011	88.928	Peak

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2390	92.638	55.83	36.808	Peak
Vertical	2390	88.928	55.83	33.098	Peak

Note:

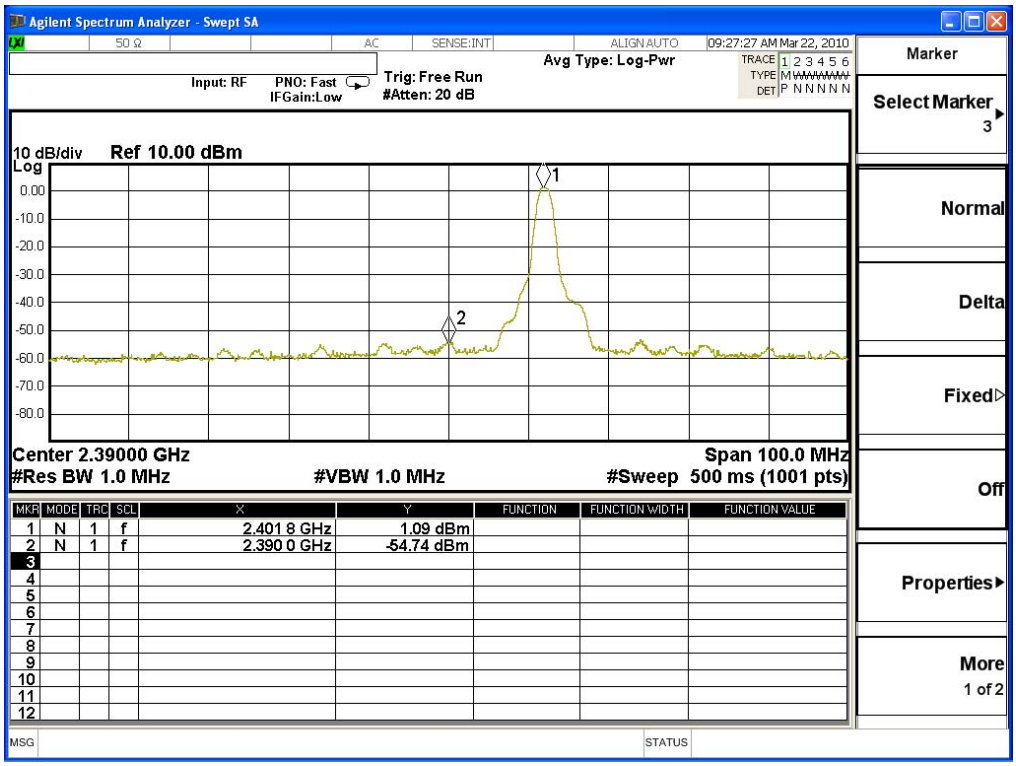
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dB(uV/m)]	Detector
Horizontal	2480	32.155	59.999	92.154	Peak
Vertical	2480	31.411	58.253	89.664	Peak

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2483.6	92.154	42.18	49.974	Peak
Vertical	2483.6	89.664	42.18	47.484	Peak

Note:

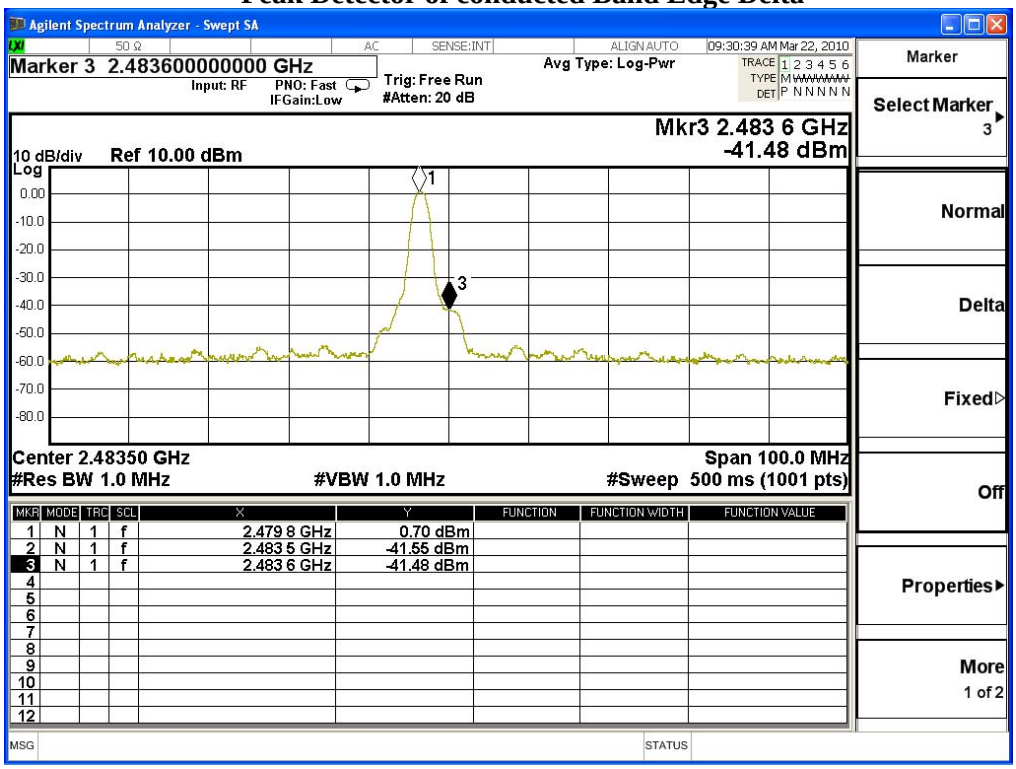
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2402	31.573	58.693	90.267	Peak
Vertical	2402	30.917	55.936	86.853	Peak

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2390	90.267	55.94	34.327	Peak
Vertical	2390	86.853	55.94	30.913	Peak

Note:

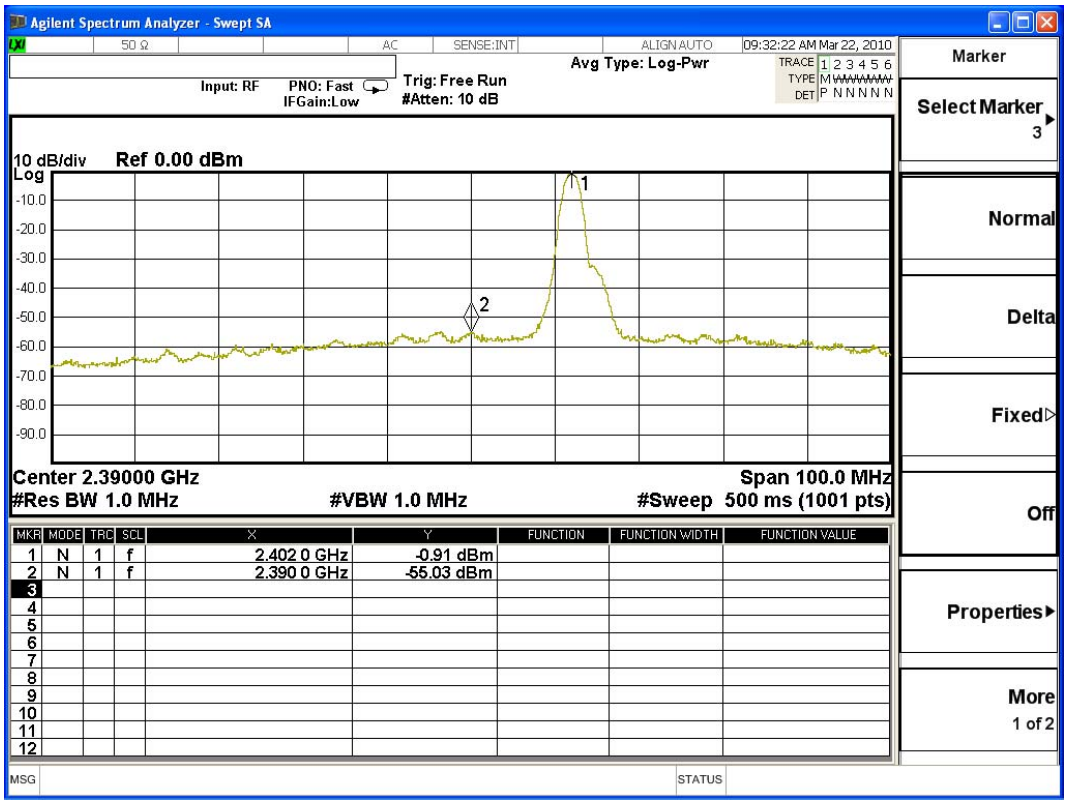
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Band Edge
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit - 3Mbps (8DPSK)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dB(uV/m)]	Detector
Horizontal	2480	32.155	58.039	90.195	Peak
Horizontal	2480	32.155	45.014	77.16	Average
Vertical	2480	31.412	56.102	87.514	Peak

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Detector
Horizontal	2483.5	90.195	34.96	55.235	Peak
Horizontal	2483.5	77.16	33.46	43.7	Average
Vertical	2483.5	87.514	34.96	52.554	Peak

Note:

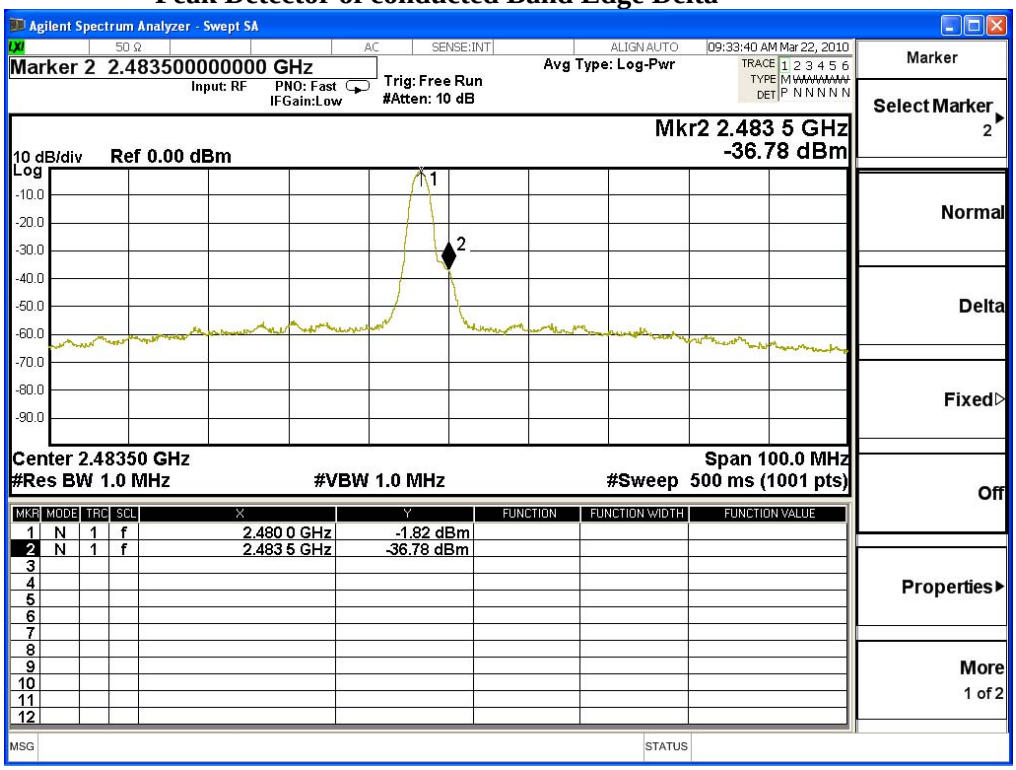
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

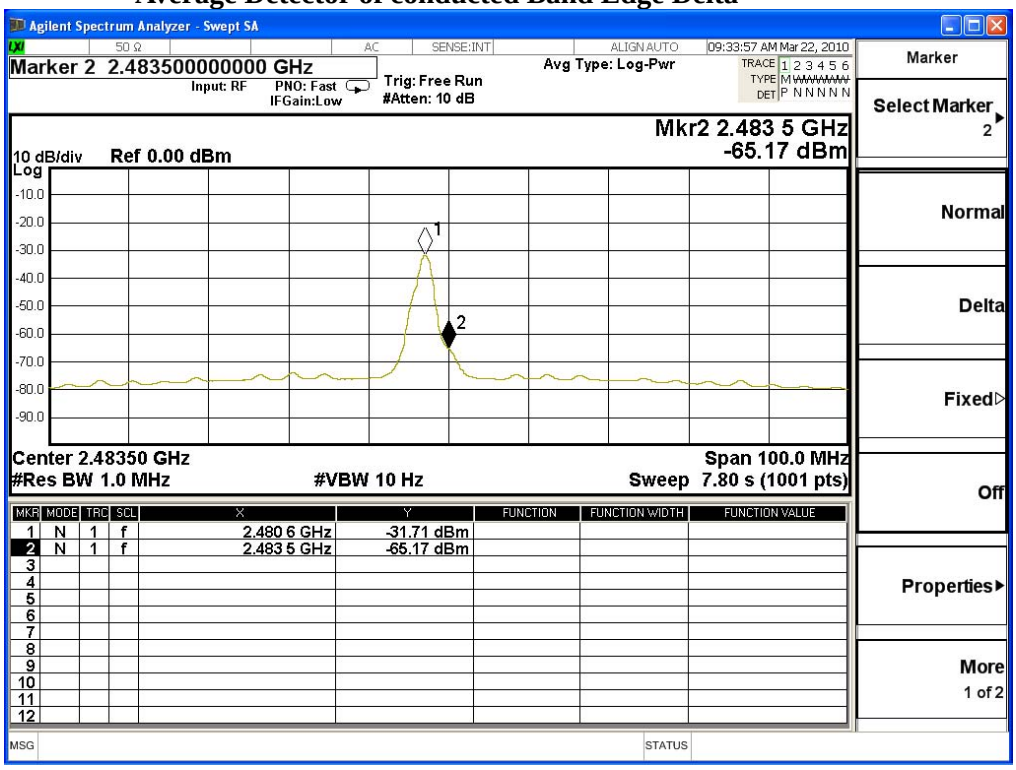
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



7. Channel Number

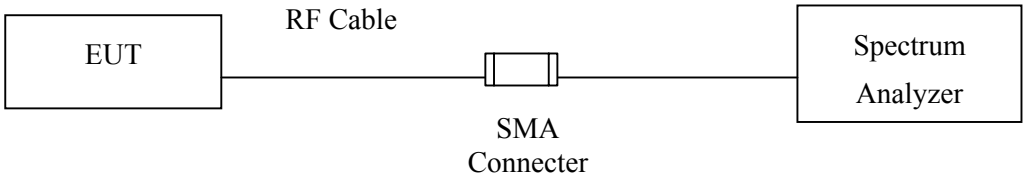
7.1. Test Equipment

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2009
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2009
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2010

Note: 1. All equipments are calibrated every one year.
2. The test instruments marked by "X" are used to measure the final test results.

7.2. Test Setup



7.3. Limit

Frequency hopping systems operating in the 2400-2483.5 MHz bands shall use at least 75 hopping frequencies.

7.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to FHSS test procedure of FCC Public Notice DA 00-705 for compliance to FCC 47CFR 15.247 requirements.

7.5. Uncertainty

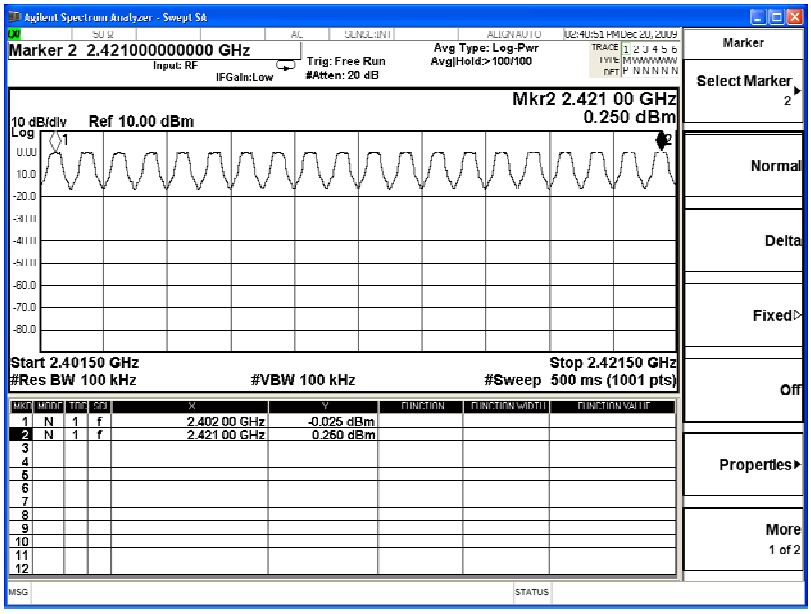
N/A

7.6. Test Result of Channel Number

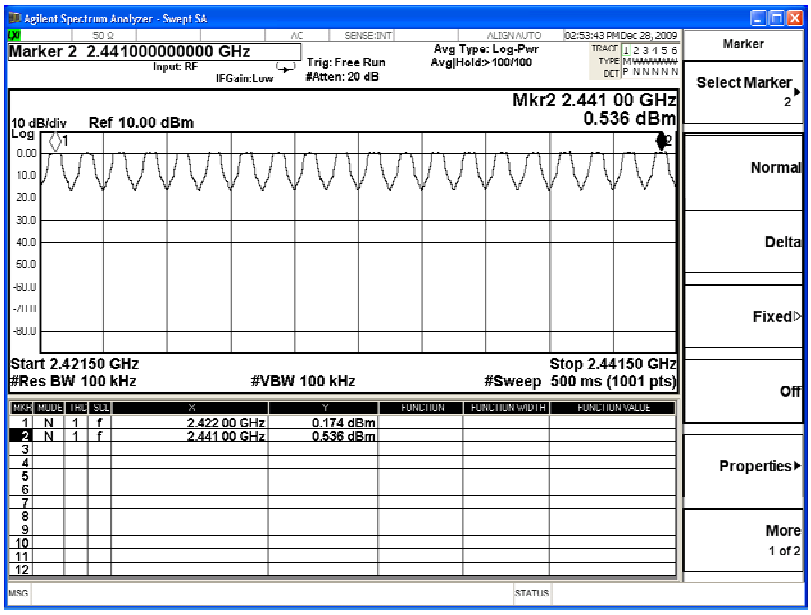
Product : WLAN 802.11b/g/n 1T1R+BT2.1 EDR Combo Slim Module
Test Item : Channel Number
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit - 1Mbps (GFSK)

Frequency Range (MHz)	Measurement (Hopping Channel)	Required Limit (Hopping Channel)	Result
2402 ~ 2480	79	>75	Pass

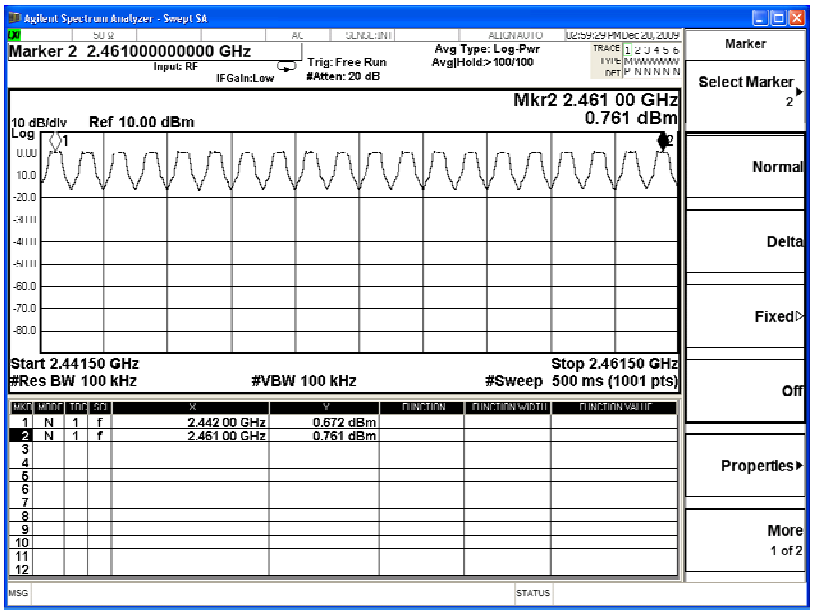
2402-2421MHz



2422-2441MHz



2442-2461MHz



2462-2480MHz